

CLAIMS

What is claimed is:

1. A method of treating neuropathic pain in a mammal which comprises
5 administering to a mammal in need of such treatment a therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof.
2. The method of claim 1 wherein the therapeutically effective amount of
10 substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 1 mg and about 2000 mg.
3. The method of claim 2 wherein the therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate,
15 or clathrate thereof, is between about 5 mg and about 1500 mg.
4. The method of claim 3 wherein the therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.
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5. The method of claim 1 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 10% by weight S(+)-ketoprofen.
6. The method of claim 5 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 5% by weight S(+)-ketoprofen.
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7. The method of claim 6 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 1% by weight S(+)-ketoprofen.
- 30 8. The method of claim 1 wherein the neuropathic pain is a central neuropathy.
9. The method of claim 8 wherein the central neuropathy arises from damage or disease of the spinal cord, brainstem, thalamus, or cerebellum.
- 35 10. The method of claim 1 wherein the neuropathic pain is a peripheral neuropathy.

11. The method of claim 10 wherein the peripheral neuropathy is a thoracic outlet obstruction syndrome, a compression and entrapment neuropathy, or Guillain-Barré syndrome.

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12. The method of claim 11 wherein the compression and entrapment neuropathy is selected from the group consisting of ulnar nerve palsey, carpal tunnel syndrome, peroneal nerve palsey, and radial nerve palsey.

10 13. The method of claim 1 wherein the mammal is human.

14. A pharmaceutical composition for the treatment of a mammal suffering from neuropathic pain which comprises an amount of substantially optically pure R(-)-ketoprofen or a pharmaceutically acceptable salt, solvate; or clathrate thereof, said amount being
15 sufficient to alleviate at least one symptom of neuropathic pain.

15. The pharmaceutical composition of claim 14 further comprising a pharmaceutically acceptable carrier.

20 16. The pharmaceutical composition of claim 15 wherein the pharmaceutically acceptable carrier is solid.

17. The pharmaceutical composition of claim 14 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate,
25 or clathrate thereof, is between about 1 mg and about 2000 mg.

18. The pharmaceutical composition of claim 17 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 5 mg and about 1500 mg.
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19. The pharmaceutical composition of claim 18 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.

35 20. The pharmaceutical composition of claim 14 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 10% by weight S(+)-ketoprofen.

21. The pharmaceutical composition of claim 20 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 5% by weight S(+)-ketoprofen.
- 5 22. The pharmaceutical composition of claim 21 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 1% by weight S(+)-ketoprofen.
- 10 23. A single unit dosage form for the treatment of a mammal suffering from neuropathic pain which comprises substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, in an amount of between about 1 mg and about 2000 mg.
- 15 24. The dosage form of claim 23 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 5 mg and about 1500 mg.
- 20 25. The dosage form of claim 24 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.
26. The dosage form of claim 23 which is formulated for oral administration.
27. The dosage form of claim 26 which is solid.
- 25 28. A method of treating tinnitus or ringing in the ear in a patient which comprises administering to a patient in need of such treatment a therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof.
- 30 29. The method of claim 28 wherein the tinnitus or ringing in the ear is associated with a disease or condition selected from the group consisting of: obstruction of the external auditory canal; infectious processes including external otitis, myringitis, otitis media, labyrinthitis, petrositis, syphilis and meningitis; eustachian tube obstruction; otosclerosis; middle ear neoplasms such as the glomus tympanicum and glomus jugulare tumors; Meniere's disease; arachnoiditis; cerebellopontine angle tumors; cardiovascular diseases including hypertension, arteriosclerosis and aneurysms; anemia; hypothyroidism;

hereditary sensorineural or noise-induced hearing loss; acoustic trauma; ototoxicity caused by acute intoxication or long-term administration or exposure to drugs or toxins including salicylates, quinine and its synthetic analogues, aminoglycoside antibiotics, diuretics, carbon monoxide, and heavy metals; and psychological disorders.

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30. A method of preventing tinnitus or ringing in the ear in a patient at risk of tinnitus which comprises administering to said patient a therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof.

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31. The method of claim 28 or 30 wherein the therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 1 mg and about 2000 mg.

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32. The method of claim 31 wherein the therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 5 mg and about 1500 mg.

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33. The method of claim 32 wherein the therapeutically effective amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.

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34. The method of claim 28 or 30 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 10% by weight S(+)-ketoprofen.

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35. The method of claim 34 wherein the substantially optically pure

R(-)-ketoprofen comprises less than about 5% by weight S(+)-ketoprofen.

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36. The method of claim 35 wherein the substantially optically pure R(-)-ketoprofen comprises less than about 1% by weight S(+)-ketoprofen.

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37. A pharmaceutical composition for the treatment of a patient suffering from tinnitus which comprises an amount of substantially optically pure R(-)-ketoprofen or a pharmaceutically acceptable salt, solvate, or clathrate thereof, said amount being sufficient to alleviate at least one symptom of tinnitus.

38. The pharmaceutical composition of claim 37 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 1 mg and about 2000 mg.

5 39. The pharmaceutical composition of claim 38 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 5 mg and about 1500 mg.

10 40. The pharmaceutical composition of claim 39 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.

15 41. A single unit dosage form for the treatment of a patient suffering from tinnitus which comprises substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, in an amount of between about 1 mg and about 2000 mg.

20 42. The dosage form of claim 41 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 5 mg and about 1500 mg.

25 43. The dosage form of claim 42 wherein the amount of substantially optically pure R(-)-ketoprofen, or a pharmaceutically acceptable salt, solvate, or clathrate thereof, is between about 10 mg and about 1000 mg.

44. A composition comprising R(-)-ketoprofen and a pharmaceutically acceptable carrier.